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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,040	08/13/2001	Christopher Robert Eccles	13121US01	9447

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EXAMINER
PALABRICA, RICARDO J

ART UNIT	PAPER NUMBER
3641	

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,040	ECCLES, CHRISTOPHER ROBERT	
	Examiner	Art Unit	
	Rick Palabrica	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-35* is/are pending in the application.

4a) Of the above claim(s) *5,20,21,23,27,30 and 33-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,6-19,22,24-26,28,29,31 and 32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicant's amendment in Paper No. 13, which cancelled claim 1, and amended claim 2 and also converts it to an independent claim, is acknowledged.

2. Applicant's traversal of the rejection of claims in the 12/23/02 Office Action has been fully considered but they are not persuasive.

As to the traverse of the 112 and 101 rejections, applicant alleges that his invention is different from the "cold fusion" concept of Fleishmann and Pons ("F and P") because they claim fusion of light nuclei by "tunneling" while the claimed invention creates fusion by a process comprising plasma discharge. The examiner disagrees because F and P refer to their claimed invention as including electrolytic decomposition isotopic hydrogen water into highly mobile nuclei (i.e., as protons, deuterons and or tritons). See, for example, in this respect, page 20 (2nd full paragraph), page 25 (2nd full paragraph), page 28, (1st full paragraph) of their publication ("Method and Apparatus for Power Generation", WO 90/10935 (Ref. A.)).

As to the operability of the claimed invention, applicant's own statements in said Paper No. 13 cast doubts as to whether there exists a clear, definitive operating embodiment. For example, in the sentence bridging pages 3 and 4, he states, "By introducing deuterium of diminished electron-path-radius into a plasma discharge that is confined within the water in a vessel, adjacent nuclei **may** experience a corresponding reduction in electric barrier, internuclear separations correspondingly become smaller and fusion **may** be initiated." (Emphasis added).

As to the matter of fractional values of n being "allowed" in either hydrogen and/or deuterium atoms, again the applicant has not provided an adequate support for this claimed concept. For example, on page 4, second paragraph of said paper, and on page 10, last paragraph of the disclosure, applicant states that the observed emission at a wavelength of about 30.8 nm **appears to be confirmed** by recent studies of galactic cluster emissions by Bohringer et al. This does not prove categorically that Bohringer et al. confirm the claimed transition.

Applicant further states in the disclosure that "it is difficult for the inventor to conceive of any other quantum mechanical event which would give rise to such an emission, other than a transition from 1 to ½ in nascent hydrogen." This statement has no probative value because it is not supported by actual proof or evidence, i.e. it constitutes no more than an uncorroborative statement of the applicant (see MPEP 716.01(c). Also, this statement does not prove that possible sources of error that could lead to the erroneous conclusion have been ruled out.

As to Mills et al. (U.S.6,024,935) having substantial discussions to energy states below the "ground state", this is not dispositive of the issues raised by the present examiner. A different examiner acted on the application for said patent and each patent application (and its accompanying claims) is treated on its own merits. See particularly MPEP 811.04, which states:

"Even though inventions are grouped together in a requirement in a parent application, restriction or election among the inventions may be required in the divisional applications, if proper."

As to the matter of catalysts inducing transitions to sub-ground states, again the applicant does not demonstrate reasonable certainty and definitiveness in his reply. He refers to the transition initiation as a "**likely result** " of some property of rubidium. Furthermore, this statement does not prove that possible sources of error that could lead to the erroneous conclusion have been ruled out.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 2-4, 6-19, 22, 24-26, 28, 29, 31 and 32 are rejected under 35 U.S.C. 101 because the claimed invention as disclosed is inoperative and therefore lacks utility.

The reasons that the inventions as disclosed is inoperative are the same as the reasons set forth in section 5 of the 9/23/02 Office Action and section 2 above, and those reasons are accordingly incorporated herein.

Claim Rejections - 35 USC § 112

4. Claims 2-4, 6-19, 22, 24-26, 28, 29, 31 and 32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The reasons that

the inventions as disclosed are not enabling are the same as the reasons set forth in section 3 that are accordingly incorporated herein.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 4, 6, 9, 10, 11, 13, 22, 24, 25, 28, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Omori (JP 3-150494) or Kubota (JP 2-275397). Either one of Omori or Kubota discloses a nuclear fusion device and method for releasing energy by providing an electrolyte having a titanium catalyst and generating a plasma discharge underwater by a voltage of at least 20 Kv.

For the benefit of the applicant, Omori (JP 3-68894) also anticipates the above claims.

6. Claims 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Omori who further discloses applying an intermittent plasma discharge using a capacitance circuit.

7. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota who further discloses the use of a heat exchanger.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 16, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Omori or Kubota, in view of either one of Yamazaki (EP 0393461) or Van Noorden (NL 8902-962-A). Either one of Omori or Kubota discloses the applicant's claims except for the use of a magnetic field. Either one of Yamazaki or Van Noorden teaches the application of a magnetic field in nuclear fusion to enhance the process.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, as disclosed by Omori or Kubota, by the teaching of either one of Yamazaki or Van Noorden, to include the application of a magnetic field, to gain the advantages thereof (i.e., more effective fusion process), because such modification is no more than the use of a well-known expedient in nuclear fusion art.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 7:00-4:30, Mon-Fri; 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

RJP
May 14, 2003

SUPERVISORY PATENT EXAMINER